Wireless LAN Access Point
Quick Started Guide

This *Quick Started Guide* only provides you with the basic instructions. For more detailed information, please refer to the *Manual* file on the provided CD.

1. Installing the Wireless Access Point Hardware

1. Making Power Connection

Connect the single DC output connector of the power adapter to the DC Power jack on the rear panel of the Access Point. Then connect the supplied power cord to the AC power adapter and the other end to an AC outlet.

2. Making Ethernet Connection

The RJ-45 Ethernet connector jack on the Access Point is to connect the Access Point to an Ethernet Hub/Switch that is part of your wired network. Connect one end of the RJ-45 UTP cable to the Access Point and the other end to any jack of the hub that is the same as those for Ethernet PC.

Note: If you want to connect the Access Point directly to the Ethernet jack of your PC, a reversed UTP wire shall be used instead of normal UTP cable.

2. Installing the Access Point Configuration Utility

Insert the Access Point Configuration Utility CD into the CD-ROM. Run **Setup.exe** from the **Utility** folder of the provided CD. When the welcome screen pops up, follow the on-screen instructions to proceed. Click **Next** when each step has been completed. Finally, click **Finish** to complete the installation.

3. Using the Access Point Configuration Utility

Setting the IP Address of the Access Point

Before using the Access Point Configuration Utility to configure the Access Point, verify that the Access Point IP address has been set up.

1. Open the Access Point Configuration Utility by selecting **Start** > **Programs** > **IEEE 802.11 Access Point** > **Access Point Configuration Utility**. The **Connect to Access Point** window opens automatically. In this window, you can see the Access Point(s) in the **Available Access Points** column.
2. Double-click the target Access Point which you want to configure, then the **Change Access Point's IP Address** window pops up.
3. Type the **New IP Address** which is suitable for the communication between the Access Point and the PC which executes the Access Point Configuration Utility. Then click the **OK** button.
4. A warning message appears that "You must use '**Download Changes**' to change your IP address permanently", just click **OK**.
5. You will return to the **Connect to Access Point** window. In the **Available Access Points** column, double-click the target Access Point whose IP address you just modified. In the **Community** field, type the Administrator community name: **admin**. Then click the **Connect** button.
6. After connection is established, select **File** > **Download Changes**. When "Do you want to Download Configuration? message appears, click **Yes**. When download is finished, you'll see "Download configuration done" message on the status bar. Now you have assigned a permanent IP address to this Access Point.

Connecting to the Access Point

1. Launch the Access Point Configuration Utility.
2. Within the utility appears the **Connect to Access Point** window. In the **Available Access Points** column, double-click the target Access Point which you want to configure.
3. In the **Community** field, type the Administrator community name **admin** and then click the **Connect** button.

Note: If you are connecting to the Access Point using User Community name **public**, only read-only access is allowed. Some of the menu options are not available. Download changes are not allowed either.

When the connection has been successfully established, the left side of the status bar shows the message "Get Configuration done" while the right side appears the **IP Address** of the connected Access Point. At the same time, the **Access Point Settings** window pops up within the utility window.

From now on, you can start to customize the Access Point settings as described in next section.

Configuring the Access Point

Access Point Setting

Access Point Settings window always opens automatically when you connect to the target Access Point. This window allows you to make the basic settings for proper operation. Enter the required values for the parameters below:

Access Point Name: The name used for identifying the Access Point.

ESSID (Extended Service Set Identity): The name used for identifying the WLAN.

Channel: :The radio frequency used for communication. Select a channel out of the available cannels or used the default channel.

Dynamic/Static IP Settings: Select whether to use **Dyanic IP** or **Static IP** as required by your network requirements. If you want to enable the **Dynamic IP Address (DHCP Client Enable)** option, select whether to use the **DHCP Server in Ethernet** or **Wireless**, which is the interface that determines the DHCP server.

Note: After setup, click **OK** and then select **File** > **Download Changes** to save changes. When "Do you want to Download Configuration? message appears, click **Yes**. When download is finished, you'll see "Download configuration done" message on the status bar.

Advanced Settings

Advance Settings allow you to set up advanced parameters described as follows:

Auto Rate Fall Back: If enabled, the Access Point will automatically adjust the transfer speed for best performance and greatest range.

IP Filtering : If enabled, only the IP protocol packets will pass through the WLAN and any other protocol will be filtered out.

SSID Broadcasting: If enabled, the Wireless Station with ESSID set to "any" can connect to this Access Point. If this option is disabled, this Access Point just only accept stations whose ESSID are the same as this Access Point connection.

Fragmentation Threshold: The fragmentation threshold, which is specified in bytes, determines whether packets will be fragmented and at what size. On an 802.11 wireless LAN, packets exceed the fragmentation threshold are fragmented, i.e., split into, smaller units suitable for the circuit size. Packets smaller than the specified fragmentation threshold value are not fragmented.

RTS (Request to Send) Threshold: When set (in bytes), it specifies the packet size beyond which the Wireless LAN Card invokes its RTS/CTS mechanism. Packets that exceed the specified RTS threshold trigger the RTS/CTS mechanism. The NIC transmits smaller packets without using RTS/CTS.

Authentication Type: Select the authentication type from **Open System**, **Shared Key** or **Both**. The authentication type must be the same on the Access Point and the Wireless Stations to be able to communicate.

Note: The Authentication type must be the same on the wireless client and on the Access Point. All shared keys on the Wireless Station must be the same as those on the Access Point with which the client station is associated.

Rates (Mbps): If **Auto Rate Fall Back** option is enabled, the Access Point will automatically adjust the transfer speed to the rates you checked as **Supported**. **Basic** means only the Wireless Stations with rates you checked can connect to this Access Point.

Mode (Operation Mode) : Select one operation mode according to your network requirements.

Access Point: This mode provides access from Wireless Stations to wired LANs and from wired LANs to Wireless Stations. Furthermore, Wireless Stations within the range of the Access Point device may communicate with each other via the Access Point.

Access Point Client: This mode allows the connection of one or more remote LANs with a central LAN, creating thus an extended single virtual LAN. In this way, any Station from the remote LAN can successfully communicate with any Station of the central LAN, as if all of them belonged to the same physical LAN. Wireless Stations can't be associated with the Access Point Client. The Access Point conducts the designated traffic to the appropriate wired or Wireless Station. User needs to define the **Preferred BSS** which corresponds to the MAC Address of the desired Access Point.

Wireless Bridge: This mode allows two types of connections:

I) **Point to Point:** The Wireless Bridge can communicate with a specific Remote MAC Address. User needs to define the **Remote MAC Address**, which corresponds to the MAC address of the Wireless Bridge of the Remote LAN.

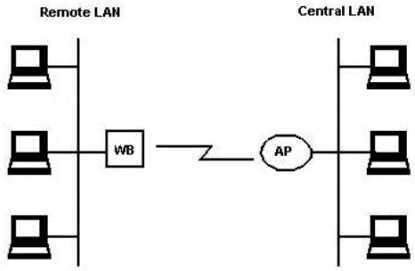

Figure A Wireless Bridge environment

II) **Point to Multipoint:** The Wireless Bridge can communicate with any Wireless Bridge available in the same channel.

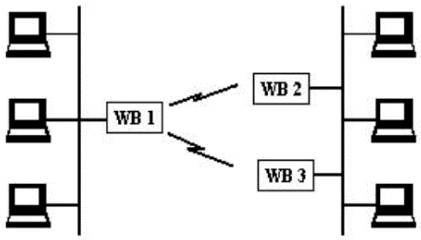

Figure B Building To Building environment

Note: After you made all the advanced settings as required, select **File** > **Download Changes**. When "Do you want to Download Configuration? message appears, click **Yes**. When download is finished, you'll see "Download configuration done" message on the status bar.

Encryption Settings

If you are going to enable WEP, select whether to use **64-bit WEP** or **128-bit WEP** as the encryption algorithm. Then enter the WEP keys in **Key 1-4** fields. WEP keys must be comprised of the hexadecimal characters (0-9, A-F, and a-f) and must contain 10 characters for 64-bit WEP Keys or 26 characters for 128-bit WEP keys.

In the **Default Key** field, select one of the four keys to encrypt the data before being transmitted. All stations, including this Access Point, always transmit data encrypted using the Default Key. The key number (1,2,3,4) is also transmitted. The receiving station will use the key number to determine which key to use for decryption. If the key value does not match with the transmitting station, the decryption will fail. To ensure successful decryption, have your Wireless Stations set identical key tables.

Note: All Wireless Stations must use the same encryption algorithm and the same Key value (same key position in its key table) as the Access Point.

After setup, click the **Set** button to enable the settings.

Authorized MAC Address

This panel allows you to view or edit the authorized MAC address list. You can determine which client is authorized to associate with this Access Point by adding its MAC address to this **Authorized MAC Address** list. If left to blank, all the Wireless Stations are capable of connecting to the network via this Access Point.

The button of **Add**, **Modify**, **Delete** and **Clear** are used to edit the list. For your convenience, you can pre-define the MAC addresses in a text file (*.txt) and click the **Load File** button to load these addresses from this text file. To enable the settings, click the **Set** button. Clicking **Set** will prompt you with the message: "Do you want to Download these Mac Addresses?". Click **Yes** to start the download.

Community Configuration

This option is used when the Administrator wishes to change the community name for **Administrator Community** or the **User Community**. For each community, enter the new password in the **New Community** filed and re-enter the value in **Confirm Community** field. Then click **Apply** to enable changes. If successful, "Password changed" message will appear. Note that both passwords are case-sensitive.

Enable Network Management Log

This option is used to enable or disable Network Management Log, which are messages displayed by selecting **Information** >**View Log Records**. Log keeps a running records of the Access Point operation. The information provided are useful for Administrators when troubleshooting.